

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

NAME OF CATEGORY: USE OF ICT FOR DEVELOPMENT BY NON- GOVERNMENT INSTITUTIONS

1. Coverage – Geographical and Demographic :-

(i) Comprehensiveness of reach of delivery centres,

Across the City of Kanpur – Second Largest Industrial City in India

(ii) Number of delivery centres

One

(iii) Geographical

(a) National level – Number of State covered

N/A

(b) State/UT level- Number of District covered

One

(c) District level- Number of Blocks covered

N/A

Please give specific details:-

(iv) Demographic spread (percentage of population covered)

100% Population of City of Kanpur – 3.5 million citizens

2. Situation Before the Initiative (Bottlenecks, Challenges, constraints etc with specific details as to what triggered the Organization to conceptualize this project):

In the City of Kanpur, the Citizen call for Service to Police was earlier limited to visits to police stations, or a call to Dial 100. There was no definite strategy to handle the calls systematically, or effectively coordinating with responding units within the police and with other related agencies.

Furthermore, there was no knowledge base available to enable proactive policing and reduce crime by effective patrolling. In effect, a timely and appropriate response to the satisfaction of the citizen, was missing

3. Scope of Services/Activities Covered(Extent of computerization in terms of number of services computerized, Process that have been re-engineered, Services which depends on these processes, Analysis/re-design of process workflows –before (as is) and after (To be) reengineering , level of automation (number of services computerized)

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

Scope of work:

Call Taking

The CAD work flow begins with a Call for Service (CFS). The call could be from a citizen, a police officer on duty or, another agency/ department. The call could be through any available medium of communication- PSTN Call, Cellular Phone Call (GSM, CDMA, WLL), police radio, SMS, e mail, alarm inputs or, VoIP calls.

- 1) The system is able to accept and make calls to PSTN HotLines to various agencies
- 2) In addition to the call taking consoles for CFS there is a specialized consoles for handling enquiry calls
- 3) **CALL CLASSIFICATION** - Each call pops up on a window on the work monitor and reflects on the GIS window simultaneously. The call taker may classify the call into- CFS, Enquiry Call, departmental call (administrative), blank call or, crank call. She may also set the priority of the CFS.
- 4) **CALLER INFORMATION** - Each call brings its ANI and the system is able to retrieve and display data from a police or telecom database. It is also capable of automatic mirroring of data as supported by the original databases. The basic information about the identity of the caller (as told by him) is entered into the form.
- 5) **CALLER LOCATION** - The PSTN calls is located on the map according to the information available from the telephone company. The system is also able to handle ALI (Automatic Location Information) for cellular calls as and when it becomes available.
- 6) **DUPLICATE CALLS** - The system is be able to handle multiple calls and multiple incidents. An incident can attract more than one call, but each call is important as it may give details about eye witnesses and other supportive evidence
- 7) **ALARM SYSTEM TRIGGER CALLS** - The system is capable of receiving electronic information from a call triggered by an alarm in a premise. It obtains the location, contact information, protecting agency, etc.
- 8) **CALL RECORDINGS** - All calls are recorded and tagged with the concerned CFS

Dispatch

The CFS, once classified and detailed by the call taker, is passed by the system to one or more dispatchers. The dispatchers are usually one or two per radio channel and their area of control is divided geographically. The system then choose the appropriate dispatcher depending on the location and nature of the incident

- 1) **CFS LOCATION** - CAD System displays the information entered by the call taker for a CFS. It also displays the location as identified by the call taker, ALI or, address database but the dispatcher also has an option of 'relocating' the CFS
- 2) **DISPATCH DECISIONS** - The CAD suggests units and resources for dispatch based on a predefined algorithm. The conditions includes

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

jurisdiction, proximity, specialization, available equipment and, rotational allocation of duties.

- 3) **UNIT STATUS** - The GIS displays the assigned, unassigned units using appropriate and intuitive graphical symbols. The dispatcher can command an assigned unit to proceed to the CFS location through radio and through the Mobile Data Terminal (MDT).
- 4) **ACTION TAKEN REPORTS** - The dispatcher is able to enter the ATR information as reported by the responding unit. ATR could also be entered by the response unit in their MDT.
- 5) **RADIO RECORDS** - The radio communications is recorded by the system.
- 6) **CALL CONFERENCING AND PATCHING**

We have 8.5 crore mobile phones and landline data of UP citizens integrated with the system to determine caller's location and minimize hoax calls.

Also, Once the call is actioned, an Action Taken Report is immediately available. Call data is available for a year on the system, and for 2 years in the archives

4. **Strategy Adopted**

- (i) The details of base line study done,

It is widely observed fact that complaints to Police through 100 number and response time for action on the ground is so much that culprit generally get away in emergency situation. This has been joke of many a Hindi movies too. All this was due to manual nature of complaint taking and communication through radio network to responding unit, all without any factual information on actual time taken for such tasks.

Solution for Dial 100 with Computer Aided Dispatch (CAD), high-resolution ISRO map based GIS tracking, Mobile Data Terminal (MDT) to Responding units (RU), real time SMS to distress citizen, capturing of video and pictures and uploading to central servers against Call for service (CFS – Complaint), website containing action taken on complaints are some of the many first adopted for this implementation.

- (ii) Problems identified

Kanpur police intended to modernise police control rooms/emergency response centres to provide a faster response to emergencies through real-time feed of the incidents ensuring a safer city

- (iii) Roll out/implementation model,

Roll out was done with parallel run for concurrent period of 3 weeks, transitioning to fully computer based roll out, training the new team in the way.

- (iv) Communication and dissemination strategy and approach used.):

Weakly Reports and Bi-weekly meetings

5. **Technology Platform used -**

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

(i) Description,

An integrated Computer Aided Dispatch platform supporting GIS Based Call Taking and Dispatch function that helps to improve the efficiency in responding to distress calls and ensuring that the citizen receives speedy assistance. It is a totally indigenous system developed based on the technology foundation from Center for Development of Advanced Computing (CDAC), a Central Government undertaking and is based on Free Open Source Technologies.

The CAD Software Platform Integrates Various Modules – CAD framework, Call Reception Systems, Call Recording and Logging, GIS (Geographical Information System), AVLS (Automatic Vehicle Location System), Responder Systems (Mobile Data Terminals), Incident Reporting System, Video Interface (CCTV Video Integration to GIS) and Converged Communication Platforms (PSTN, Wireless (Cell Phone), VOIP, Police Radio, SMS, e-mail)

The Integrated Software Platform supports all features required for efficiently handling all stages of an emergency call.

- Receiving Distress Calls
- Gathering Caller's Details
- Finding the geographical position of caller
- Identifying the proximate vehicle
- Sending instructions to the vehicle
- Logging voice/data communication
- Access Video from CCTV
- Generating reports based on queries

The flow of operation of the system:

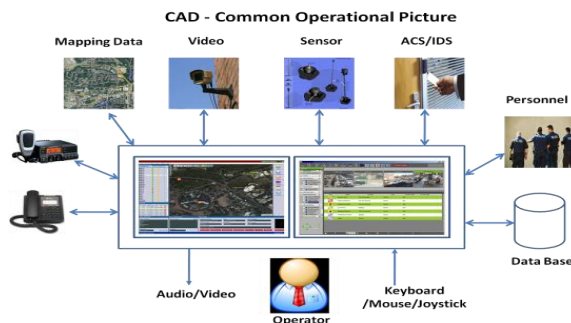
- The responding Units are fitted with Mobile Data Terminals and are GPS enabled for tracking.
- The Call taker and Dispatcher workstations display a digital map of the city.
- The responding Units continuously update the Base Station with their location information, which in turn is displayed at the workstations with the help of the GIS server.
- In case of distress, the informer dials "100" for assistance.
- This call is processed to by a standard Call Processing Platform (IP EPABX) available at the Police Control Room
- The call is routed to a free Call taker.
- Caller's location is spotted on the display of the Call taker.
- The Call taker screens the call and captures information.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

- The Call taker forwards the actionable call to a free Dispatcher. In case of high severity events, the Call taker forwards the call to Dispatcher even before all the information has been captured.
- The Operator at the Dispatcher station attends the call.
- The Dispatcher then identifies the nearby free Patrolling vehicles and assigns one or more of it to the event.
- The Dispatcher sends details of the location, priority and any other information of interest to the MDT of the assigned Patrolling vehicles
- If required, a voice call can also be set up with the Patrolling vehicle.
- Vehicles move to the distress spot. Dispatcher can watch and guide it. In addition a local navigation System in the MDT can help provide Navigation support.
- On completing the mission, the patrolling vehicle sends a predefined status message, indicating the end of the mission.
- All activities at each station are logged.
- Reports can be generated in various formats based on various criteria.
- The Supervisor has at all times access to all the data.

(ii) Interoperability

The solution supports a common operational picture for Computer Aided Dispatch of Emergency and CCTV Surveillance



(iii) Security concerns

The solution is safe secure and cannot be hacked into. We have 8.5 crore mobile phones and landline data of UP citizens integrated with the system to determine caller's location and minimize hoax calls. Also, Once the call is actioned, an Action Taken Report is immediately available. Call data is available for a year on the system, and for 2 years in the archives

(iv) Any issue with the technology used

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

We had faced a concern with voice-to-text technology (Hindi) since the technology in its current state is not mature, still we implemented the technology with limitations

(v) Service level Agreements(SLAs) (Give details about presence of SLA, whether documented, whether referred etc. #)

S.no.	SLA	Penalty
1	99% <Uptime<99.5%	Service Extension will be credited for the period equal to the downtime.
2	98% <Uptime<99%	Service Extension period will be credited for twice the period equal to the downtime.
3	95% <Uptime<98%	Service Extension period will be credited for the period equal to five times the downtime.
4	Uptime<95%	UP police may terminate the contract, en-cash the performance guarantee and impose costs as specified.

6. Adherence to Service Level Agreement (SLA) – Give details about presence of SLA whether documented, whether referred etc, certificate from user department is mandatory #)

Yes we are adhering to the SLAs

7. Citizen Centricity (Give specific details on the following#)

(i) Impact on effort, time and cost incurred by user,

- **Reduction in time to record complaint**
- **Faster Response time**
- **Complaint to closure update via Tele-call, SMS or Website update.**

(ii) Feedback/grievance redressal mechanism,

We have a feedback mechanism on each page where citizens can go online to give feedback also police officials can give feedback through the application

(iii) Audit Trails,

Logs are maintained for 90 days in forms of voice conversation and radio conversations and also digital logs

(iv) Interactive platform for service delivery,

Our Platforms include Telephone, SMS, Web portal etc.

(v) Stakeholder consultation

Police informs citizen through media releases and Interviews and media provides citizen representation to police.

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

8. User convenience (Give specific details about the followings #)

- (i) Service delivery channels (Web, email, SMS etc.)

Our Service delivery channels include

- Telephone
- SMS
- Email
- Web-portal

Completeness of information provided to the users,

Users have full visibility through above mentioned portals

- (ii) Accessibility (Time Window),

The application is available 24/7

- (iii) Distance required to travel to Access Points

None as the services are phone call away

- (iv) Facility for online/offline download and online submission of forms,

N/A

- (v) status tracking

Yes, Status tracking is possible through SMS, Web Portal, Telephone

9. Cost to user (Give details about impact on Service charge paid, travel cost, indirect cost incurred by the user, number of payment channels, etc. #)

None

10. Efficiency Enhancement (Give specific details about the following #)

- (i) Volume of transactions processed,

5000+ Calls Per Day

- (ii) Coping with transaction volume growth

We already have the capacity to handle double the call volumes in the same facility

- (iii) Time taken to process transactions,

Less than 3 minutes

- (iv) Accuracy of output,

99%

- (v) Number of delays in service delivery

N/A

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

11. Problem Resolution and Query Handling(Give details about availability of help desk, query resolution mechanism, single window resolution, interactive interface etc. #)

Our Application is available 24/7 on phone, Web, SMS

- **Help Desk - Yes**
- **Query resolution mechanism - Yes**
- **Single window resolution – Yes**
- **Interactive interface - Yes**

12. Innovation(Give details on extent to which the service is unique compared to other similar services, impact on number of steps required, identification and removal of bottlenecks/irrelevant steps etc. #)

SMS based intimation to the citizens (distress callers)
MDT based CFS Tracking (call-for-Service)
Web based status update
Radio and telephone voice integration and recording
Reduction in Hoax Calls - 8.5 crore mobile phones and landline data of UP citizens integrated with the system to determine callers location and minimize hoax calls

13. Sustainability (Give details about Self sustainability of these w.r.t Organization (hiring trained staff, training etc.), financial (Scope for revenue generation , Cost benefit analysis of the project etc. #)

Public Services hence no revenue generated

14. Adaptability Analysis

(i) Measures to ensure adaptability and scalability

Our software is flexible as per the user requirement and can be scaled up and down depending upon the user requirement. Our system is equipped to take double the call volumes.

(ii) Measures to ensure replicability

Our solution is fully replicable and is being rolled out in Ghaziabad and Allahabad

(iii) Restrictions, if any, in replication and or scalability

None

(iv) Risk Analysis

To make the solution more successful we would require changes in the field police culture

15. Privacy & Security Policy - (Give details about security technique deployed , use of digital signature, encryption etc #)

N/A

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

16. E-inclusion(Give details about availability of local language interface, Online submission of forms, length and breadth of services made available online, universal accessibility of the application).

**Our Solution is available in two languages English and Hindi.
Yes our solutions are available online.**

17. Result Achieved/ Value Delivered to the beneficiary of the project-(share the results, matrices, key learning's, feedback and stakeholders statements that show a positive difference is being made etc):

(i) To organization

UP Police – We have delivered the most modern police control room in the country to Kanpur Police. This control room is equipped with all the modern facilities as listed above. It will help the police in taking the fact based decisions.

(ii) To citizen

Citizens of Kanpur – would benefit from the latest ultra-modern police control room by experiencing quicker response time and transparent and effective services from police

(iii) Other stakeholders

**Police Call takers – The solution would render better work environment for the call takers and dispatchers
Reduction in Hoax Calls - 8.5 crore mobile phones and landline data of UP citizens integrated with the system to determine callers location and minimize hoax calls**

18. Extent to which the Objective of the Project is fulfilled-(benefit to the target audience i.e.G2G, G2C, G2B, G2E or any other, size and category of population/stakeholder benefited etc):

The objectives of the project are completely fulfilled; we render services to G2C and G2E.

19. Comparative Analysis of earlier Vs new system with respect to the BPR, Change Management, Outcome/benefit, Change in legal system, rules and regulations

In the City of Kanpur, the Citizen call for Service to Police was earlier limited to visits to police stations, or a call to Dial 100. There was no definite strategy to handle the calls systematically, or effectively coordinating with responding units within the police and with other related agencies.

Furthermore, there was no knowledge base available to enable proactive policing and reduce crime by effective patrolling. In effect, a timely and appropriate response to the satisfaction of the citizen, was missing

AWARDS SCHEME FOR EXEMPLARY IMPLEMENTATION OF e-GOVERNANCE INITIATIVES

20. Other distinctive features/ accomplishments of the project:

Other distinctive features of the project are as following

- 1) SMS based intimation to the citizens (distress callers)**
- 2) MDT based CFS Tracking (call-for-Service)**
- 3) Web based status update**
- 4) Radio and telephone voice integration and recording**
- 5) Reduction in hoax call - 8.5 crore mobile phones and landline data of UP citizens integrated with the system to determine callers location and minimize hoax calls**

This is just an indicative list of indicators, Applicant can add more information based on suitability of the project nominated.